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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,496	02/10/2004	Naum Sapozhnikov		3277

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EXAMINER

MARCANTONI, PAUL D

ART UNIT PAPER NUMBER

1755

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/775,496

Applicant(s)

SAPOZHNIKOV, NAUM

Examiner

Paul Marcantoni

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-13 and 15 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-13 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Applicant's arguments filed 2/9/06 been considered but are not persuasive.

New Matter added to Original Disclosure:

This objection has been withdrawn after further consideration of applicants' comments.

Non-Elected by Original Presentation:

Newly submitted claim 14 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 14 is directed to concrete "pavement" and not a concrete composition. Further, the pavement is directed to an article or "layered" structure which is different than simply a composition. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 14 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

35 USC 112 First Paragraph:

Claims 3-13 and 15 are not commensurate with an enabling disclosure because the applicants' specification requires specific amounts of cement, sand, coarse aggregate (ie limestone), and water to obtain a high compressive strength. Applicants are referred to their own Tables 3 and 5 on pages 11 and 13 of their specification which teaches specific amounts of these components that are required to obtain high compressive strengths. Applicants do not have support for virtually any or all amounts from zero to 100 wt% for each component and still obtain their claimed compressive strengths of up to 5000 psi. Applicants are bound by their specification to the specific amounts that allow for them to obtain the compressive strengths of up to 5000 psi.

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35 USC 112 Second Paragraph:

Claims 3-13 and 15 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

Claims 3-13 and 15 do not particularly point out and distinctly claim the specific ranges of amounts of cement, sand, coarse aggregate (ie limestone), and water to obtain a high compressive strength of up to 5000 psi. Applicants must provide a specific range of amount of each component critical to obtain high compressive strengths.

The applicants' amendment necessitated this new grounds of rejection under the second paragraph of 35 USC 112. The term "suitable proportions of cement, sand as fine aggregate, and water" are indefinite because applicants do not particularly point out and distinctly claim the specific amounts that lead to their claimed compressive strengths. *Suitable* proportions are vague and means that any amount will lead to these compressive strengths which is not possible. What is a suitable amount exactly?

The terms "depending upon the requirements" is indefinite. Are not the requirements ASTM requirements that are conformable with US Code of practice for concrete safety standards?

The applicants are respectfully requested to remove the parentheses in their claims such as 2.36 mm (Sieve No. 8) in claim 7 and other claims.

Applicants should consider amending to *2.36 mm, corresponding to sieve no. 8*.

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This can be done in all claims Sieve is in parentheses. Also deletion of (MR) is advised.

35 USC 102:

This rejection has been withdrawn in favor of only the 103 rejection.

35 USC 103:

Claims 3-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turpin Jr. '105 B1, Sawara et al. '831 B1, Wagh et al. '493, Urschel III et al. '716, GB 2085865 (Walters), or Yamamoto et al. (JP 2001039756). alone or in view of Siegemann (Mitt Kgl Materialprüfungsamt -- year 1912)

Note : Cangiano et al. '502, Nelles '107, Rols et al., Orlovskii, Popko et al., Choi et al. (could have also been used as secondary reference like Siegmann because they also teach using limestone waste for making concrete), and Shi et al. have been withdrawn. GB 2085865 has been withdrawn because it teaches a crushing strength (compressive strength) of 7.0 N/sq mm (1015 psi) and 10.5 N/sq mm (1523 psi) which is now below applicants' claimed range for compressive strength of 2000 to 5000 psi.

Response:

The applicants have responded to the examiner's rejection under 35 USC 112, second paragraph rejection by now adding specific particles sizes for aggregates and also notes that the artisan (ie one of ordinary skill in the art?) can readily determine the sand, cement, and water to base his requirements. This amendment, however does not overcome the rejection because in order to obtain a compressive strength of 2000 to 5000 psi for concrete, it requires applicants use a specific amount of cement, aggregate, and water. Whether one of ordinary

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skill in the art would readily determine those amounts is not sufficient because these specific compressive strength concretes requires specific amounts of each component of cement, aggregate, and water. As for particle size, while this specifies the size of aggregate used for applicants' invention, it still does not resolve the problems of critical amounts of cement, aggregate, and water that leads to a compressive strength of 2000 to 5000 psi.

35 USC 102:

The applicants argue that there invention relates to mixtures of limestone in various sizes as making the coarse aggregate and Turpin is not appropriate. The examiner disagrees and notes that the applicants' claimed coarse aggregate reads upon even fine powder of limestone because claim 3 requires that the limestone grains are finer than 9.5 mm and also 4.75 mm. Also, applicants are not clear as to what they mean by "close to but not exceeding" with respect to the 2/3 of the aggregate. How do applicants define what they mean by close to? The applicants' claimed particle sizes read upon particles sizes less than 9.5 mm and 4.75 mm. Turpin even teaches a compressive strength of 2960 psi in Table 1 which is within the range claimed by applicants (see col.5, Table 1). It is also the examiner's position that control of particle size would have been an obvious design choice for one of ordinary skill in the art unless applicants can show criticality or an unexpected result. Applicants have not shown criticality or unexpected result because Turpin teaches compressive strengths within and above applicants' claimed compressive strength range for their concrete.

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Again, Sawahara et al. teach applicants' claims because the limestone powder still reads upon the applicants' claimed particle size range (less than 9.5 mm and less than 4.75 mm). Further, the applicants have not argued properties such as compressive strength and this also appears to be met by Sawahara. Applicants have not shown criticality using their claimed particle size for limestone. Note also that it would appear that applicants' invention seemed to be directed to limestone waste but limestone waste is not even claimed in claim 1 so it reads upon any limestone. It is improper for applicants to read the limitations of another claim (dependent) or their disclosure into the claims such as independent claim 3 when it is not explicitly recited in that claim.

The applicants argue Wagh et al. does not provide details of the coarse aggregate. In rebuttal, one of ordinary skill in the art would have the capability of controlling particle size within acceptable sizes and further, Wagh et al. teach that he obtains a compressive strength after 30 minutes of 4000 psi which is clearly within applicants' claimed compressive strength range. Applicants have not shown criticality or unexpected results using their claimed particle size range. It would also be not possible to do so because claim 3 (applicants' independent claim) has absolutely no amounts so where is the support to show any example of specific amounts for claim 3? It would not be commensurate in scope should applicants have such support for amounts in their original disclosure.

The applicants argue that Urschel does not teach their claimed particle size for limestone. While Urschel may teach a coarse aggregate of 1 inch mesh to No.4 mesh, the applicants claimed "coarse" aggregate now reads upon fine

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aggregate or powder as set forth in column 4 lines 35-42 (fine aggregate). Applicants may label their coarse aggregate as a "coarse" aggregate but it certainly falls within the "fine aggregate" of Urschel. Further, and again, what do applicants mean by "close to but not exceeding" with respect to total amount of coarse aggregate. It is not clear what close to means.

The applicants argue that Yamamoto et al. does not teach a coarse aggregate. Yet, applicants' labeled coarse aggregate reads upon a fine aggregate based on what they claim because they claim particle sizes finer than 9.5 mm and 4.75 mm. It is further noted that not only is the use of limestone aggregate known for concrete, Yamamoto et al. teach a 28 day compressive strength of greater than 4351 psi (30 N/sq mm) which is thus within applicant's claimed compressive strength range.

The applicants also argue the Siegemann reference or abstract individually without addressing the combination. Siegemann teaches it is old in the art to use limestone aggregate for a concrete (as does Choi). Further, control of the particle size of aggregate and optimization of said particle size would have been an obvious design choice for one of ordinary skill in the art to provide the required compressive strength.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is

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filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Marcantoni
Primary Examiner
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